



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/955,982

09/20/2001

Tetsuhiko Miyatani

2001_1336A

1907

513

7590

09/07/2004

WENDEROTH, LIND & PONACK, L.L.P.
2033 K STREET N. W.
SUITE 800
WASHINGTON, DC 20006-1021

EXAMINER

RAMAKRISHNAIAH, MELUR

ART UNIT

PAPER NUMBER

2643

DATE MAILED: 09/07/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/955,982

Applicant(s)

MIYATANI, TETSUHIKO

Examiner

Melur Ramakrishnaiah

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-17 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7,8,10,11 and 13 is/are rejected.
- 7) ☒ Claim(s) 3,6,9 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 4-5, 7-8, 10-11, are rejected under 35 U.S.C 102(e) as being anticipated by Maruta et al. (JP411055216A, hereinafter Maruta).

Regarding claim 1, Maruta discloses a receiver that uses multiple antennas to receive signals arriving over multiple paths, which receiver comprises: receive weight generating means (4, fig. 1) that generate receive weights for every antenna based on signals received from the antennas (1-1, 1-2...1-N, fig. 1) summing means (8, fig. 1) that calculates sums of results obtained by multiplying the signals from the antennas and receive weights of individual antennas generated by the receive weight generating means (4, fig. 1), and path detection means (reads on 10, fig. 1) that detects the paths of the received signals based on the sums calculated by the summing means (fig. 1, see abstract).

Regarding claims 2, 4-5, 7-8, 10-11, Maruta further teaches the following: the receive weight generating means (4, fig. 1) generates receive weights for each of the multiple paths, the summing means (8, fig. 1) calculates a sum of each of the multiple receive weights and path detection means detects paths of the received signals based

Art Unit: 2643

on multiple sums calculated summing means, summing means comprises at least one multiplier in (2) that time division multiplies the signals from the antennas and receive weights of the individual antennas generated by the receive weight generating means (4, fig. 1) and a synthesizer (8, fig. 1) sums the multiplication results for the individual antennas produced by the multiplier, CDMA receiver (fig. 1) for receiving spread spectrum signals over the airways, which receiver detects the spread spectrum signals in the received signals for every path based on the received signal path detection result (fig. 1, see abstract).

3. Claims 13, 18-19, are rejected under 35 U.S.C 102(e) as being anticipated by Ishii et al. (JP411205286A, hereinafter Ishii).

Regarding claim 13, Ishii discloses CDMA base station that uses a receiver to receive spread to receive spread spectrum signals from multiple mobile stations that transmits CDMA spread spectrum signals over the airways, detect received signals paths for every mobile station and detect the spread spectrum signals contained in the received signals for every mobile station and every path based on the detection result, the receiver, comprising; multiple antennas (62, fig. 1) that receive signals arriving over multiple paths, receive weight generating means (fig. 1) that generates receive weights for every antenna based on received signals from the antenna, summing means (84, fig. 2) that calculates sums of obtained by multiplying the signals received from the antennas and the receive weights of the individual antennas generated by receive weight generating means, and path detection means (reads on rake synthesis) that

detects paths of the received signals based on sums calculated by summing means (figs. 1-2, see abstract).

Regarding claims 18-19, Ishii discloses a path detection method that detects path signals received by multiple antennas (62, fig. 1) via multiple incoming paths, which path detection method detects paths (reads on rake synthesis) of the received signal based on sums of multiplication results obtained by multiplying signals received from antennas and receive weights of individual antennas (figs. 1-2, see abstract).

4. Claims 3, 6, 9, 12, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 14-17 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (703) 305-1461. The examiner can normally be reached on M-F 6:30-4:00; every other F Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (703)305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2643

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Melur Ramakrishnaiah
Primary Examiner
Art Unit 2643